Inventor(s): Wilfer et al.

Attorney Docket No.: 2901886-000025

REMARKS

Preliminary Remarks:

Upon entry of this Amendment, claims 1, 2, 4 to 6, and 8 to 23 are pending of which claim 1 is independent. Claim 1 is amended to indicate, *inter alia*, that the casing is single-layered or multilayered, wherein the layer or at least one layer is made up of a mixture consisting essentially of a) and b) and to incorporate the limitations of claim 10, which is cancelled without prejudice to, or disclaimer of, the underlying subject matter. Claim 9 is amended to properly depend from claim 1. Support for the claim amendments may be found in the specification as filed. *See*, *for example*, Specification at page 8, lines 17 to 18. Therefore, no new matter is added.

Applicants respectfully request entry of this Amendment under 37 C.F.R. § 1.116 in that it places the application in better form for consideration on appeal. This Amendment does not raise any new issues or require a new search because, for example, claim 8 has already been examined.

Claim Rejections:

Rejection under 35 U.S.C. § 102

Claims 1, 2, 4, 6, 8, 9, 15, and 20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Hisazumi *et al.* (U.S. Pat. No. 4,764,406). Applicants respectfully traverse.

As the Examiner correctly sets forth in the final Office Action, Hisazumi *et al.* teach a smokeable and water vapor permeable tubular food casing. The casing is made up of a polymer composition comprising three essential components: 45% to 85% by weight of polyamide, 10% to 45% by weight of an olefin/vinyl alcohol-copolymer, and 5% to 30% by weight of a polyolefin. The mixing ratio must be within a specific area in the ternary diagram shown in Figure 1 of Hisazumi *et al.*

The food casing as claimed is made up of a polymer composition which does not require a polyolefin. The term polyolefin, as used by Hisazumi *et al.* embraces not only "pure" polyolefins, such as polyethylene or polypropylene, but also ionomer resins, such as ethylene/methacrylate copolymers or ethylene/methacrylic acid copolymers (see column 6, lines 58 to 66). While some of these compounds can be regarded as hydrophilic (*e.g.*, the ionomers and the

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ethylene/methacrylic acid copolymers), none of them is water-soluble within the meaning of the present application. Within the context of the present disclosure, "water-soluble" means a solubility of at least 20 grams per liter water having a temperature of 80°C. Specification at page 7, lines 26 to 28.

Applicants respectfully submit that claims 1, 2, 4, 6, 8, 9, 15, and 20 are not anticipated by Hisazumi *et al.* and respectfully request withdrawal of this rejection.

Rejection under 35 U.S.C. §§ 102/103

Claim 14 was rejected under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as being obvious over, Hisazumi *et al.* Applicants respectfully traverse.

Claim 14 focuses on the water-vapor permeability of the inventive casing, which is at least 30 g/m²d. Claim 14 is dependent on claim 1 and Applicants respectfully submit that claim 14 is neither anticipated by, nor obvious over, Hisazumi *et al.* for at least the reasons set forth previously. Therefore, Applicants respectfully request withdrawal of this rejection.

Rejections under 35 U.S.C. § 103

Claim 5 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hisazumi *et al.* in view of Delius *et al.* (U.S. Pat. App. Pub. No. 2002/0065364). Applicants respectfully traverse.

As indicated previously, Hisazumi *et al.* teach a ternary composition that does not comprise a component which is water-soluble as defined in the present application. Delius *et al.* disclose a tubular sausage casing produced from a polymer blend comprising a coherent phase made from an aliphatic and/or partially aromatic (co)polyamide and a dispersed phase made from an olefinic polymer. Delius *et al.* at paragraph [0002]. The olefinic polymer is a block copolymer grafted with intramolecular carboxylic anhydrides. *Id.* at paragraph [0015]. The olefinic polymer increases the flexibility of the casing.

However, Delius *et al.* do not cure the deficiencies of Hisazumi *et al.* because the food casing of Delius *et al.* also does not comprise a water-soluble polymer. In other words, the combination of Hisazumi *et al.* with Delius *et al.* does render obvious the food casing claimed in claim 5. Therefore, Applicants respectfully request withdrawal of this rejection.

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Claims 10, 13, and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hisazumi *et al.* in view of Okudaira (U.S. Pat. No. 6,294,263). Applicants respectfully traverse.

As the Examiner correctly sets forth in the final Office Action, Hisazumi *et al.* do not disclose organic or inorganic fillers as constituents of their smoke permeable food packaging film. The Examiner uses Okudaira as teaching such fillers.

Okudaira discloses an at least two-layered laminated polyamide film with high oxygen barrier properties. The film comprises a layer B which is mainly composed of a mixture of an aliphatic polyamide and an elastomer. Layer A is mainly composed of a partially aromatic polyamide. Either one or both layers may contain additives, such as an antistatic agent, an inorganic lubricant, an anti-fogging agent, an anti-blocking agent, a heat-stabilizer, an ultraviolet absorber, a dye, a pigment and the like. Okudaria at column 6, lines 51 to 57. The amount of these optional ingredients is 5% by weight or less in each resin layer.

However, none of the additives recited by Okudaira qualifies as a filler within the meaning of the present invention, *i.e.*, as a particulate filler. A large amount of such fillers would impair transparency of the film, which would be contrary to the teaching of Okudaira (the film of Okudaira has a high transparency, *see*, *Id.* at column 1, line 58). Moreover, Okudaira is silent about a heat-setting of the stretched film (as in claim 16).

Applicants respectfully submit that claims 10, 13, and 16 are not unpatentable over Hisazumi *et al.* in view of Okudaira and respectfully request withdrawal of this rejection.

Claims 10 to 13 and 22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hisazumi *et al.* in view of Anderson *et al.* (U.S. Pat. No. 6,231,970). Applicants respectfully traverse.

Hisazumi *et al.* do not disclose any such fillers as part of their smoke-permeable food packaging film. The Examiner relies upon Anderson *et al.* as showing tubular food casings having inorganic fillers or organic fillers such as carbohydrates. The food casing of Anderson *et al.* is, however, based on thermoplastic starch, not on (co)polyamide, as claimed. A person of ordinary skill in the art would not have found any reason to incorporate the fillers of Anderson *et al.* into the casing of Hisazumi *et al.*, as suggested by the Examiner. Even if, *arguendo*, one of ordinary skill in the art would incorporate the fillers of Anderson *et al.* into the casing of Hisazumi *et al.*, the result would not be a smoke-permeable food casing as claimed in claims 10

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to 13 and 22. Therefore, Applicants respectfully submit that claims 10, 13, and 16 are not unpatentable over Hisazumi *et al.* in view of Anderson *et al.* and respectfully request withdrawal of this rejection.

Claims 17 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hisazumi *et al.* Applicants respectfully traverse.

In claim 17, the liquid smoke is an acidic liquid smoke. So-called "natural" liquid smoke, as is obtained by heating wood and introducing the smoke into water, is acidic since it contains a considerable amount of acetic acid. In Examples 1 to 3 of Hisazumi *et al.* the sausages are smoked for 90 minutes at a temperature of 60°C and a relative humidity of 40% to 60%. Hisazumi *et al.* at column 8, lines 26 to 44. Smoking is thus achieved with a hot gaseous smoke, not with a liquid smoke. In fact, Hisazumi *et al.* do not contemplate liquid smoke. Therefore, claim 17 is not rendered obvious by Hisazumi *et al.*

Claim 19 is a method for producing a smoked food in a water-vapor- and smoke-permeable tubular casing comprising the polyamide-based casing of claim 1. Applicants respectfully submit that claim 19 is not unpatentable over Hisazumi *et al.* for at least the reasons set forth previously with respect to claim 1.

In conclusion, Applicants respectfully submit that claims 17 and 19 are not unpatentable over Hisazumi *et al.* and respectfully request withdrawal of this rejection.

Claims 18 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hisazumi *et al.* in view of Hammer *et al.* (U.S. Pat. No. 5,501,886). Applicants respectfully traverse.

Applicants have already discussed the deficiencies of Hisazumi *et al.* previously. The Examiner uses Hammer *et al.* for teaching a shirred and a seamless tubular food casing. However, the casing of Hammer *et al.* is based on cellulose hydrate, rather than on polyamide or copolyamide, as claimed. Therefore, Hammer *et al.* do not cure the deficiencies of Hisazumi *et al.* and Applicants respectfully submit that claims 18 and 21 are not unpatentable over Hisazumi *et al.* in view of Hammer *et al.*

Claim 23 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Hisazumi *et al.* in view of Krallmann *et al.* (U.S. Pat. App. Pub. No. 2003/0059502). Applicants respectfully traverse.

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Krallmann *et al.* teach a smoke-impregnated tubular plastic casing. The casing may have a polyamide inner layer. Krallmann *et al.* at paragraph [0013]. Even if in the process as taught by Hisazumi *et al.* a polyamide-based casing was impregnating with liquid smoke and filled with sausage emulsion or raw sausage emulsion, this would not have rendered obvious the process as claimed in claim 23. This is because in the process of claim 23, the tubular food casing has a composition which is different from that one of Hisazumi *et al.*

Applicants respectfully submit that claim 23 is not unpatentable over the combination of Hisazumi *et al.* and Krallmann *et al.* and respectfully request withdrawal of this rejection.

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CONCLUSION

In view of the amendments and remarks above, Applicants respectfully submit that this application is in condition for allowance and request favorable action thereon. The Examiner is invited to contact the undersigned if any additional information is required.

As this response is filed within the statutory period for reply, Applicants believe that no fee, other than the appropriate extension of time, is due. If additional fees are required, they may be charged to Deposit Account No. 50-4254, referencing Attorney Docket No. 2901886-000025.

Respectfully submitted,

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